Kingdom of Saudi Arabia
Ministry of Interior
High Commission for Industrial Security
Secretariat General

المملكة العربية السعودية
وزارة الداخليّة
الهيئة العليا للأمن الصناعي
الأمانة العامة

SECURITY DIRECTIVES FOR NON-INDUSTRIAL FACILITIES

نسخة مرخصة لشركة

2017

نسخة مرخصة لـ شركة المياه الوطنية

INTRODUCTION

The High Commission for Industrial Security (HCIS) directives for Non-Industrial Facilities set forth the framework under which HCIS specifies security, safety, and fire protection requirements for facilities that are under HCIS jurisdiction but are not classified as industrial facilities.

Non-industrial facilities include, but are not limited to, those associated with water treatment plants, potable water storage and distribution piping, scientific research organizations and railways.

Compliance with these directives is a statutory requirement under the laws of the Kingdom of Saudi Arabia. Failure to comply with HCIS regulations at facilities under HCIS jurisdiction may result in operation delays as HCIS approvals are a prerequisite for facility operation.

HCIS reserves the exclusive right to modify, add to, or amend, the Security, Safety & Fire Protection Directives without prior notice.

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LIST OF SECURITY (SEC) DIRECTIVES FOR NON-INDUSTRIAL FACILITIES

SEC#	***SEC TITLE***
SEC 100	*General Requirements*
SEC-101	*Potable Water Storage, Distribution & Pumping Facilities*
SEC-102	*Railway Operations Security*

Note: *HCIS may issue additional Non-Industrial Directives at any time*

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SEC-100
General Requirements for Security Directives at Non-Industrial Facilities

Security Directives
for Non-Industrial Facilities

2017

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KINGDOM OF SAUDI ARABIA
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HIGH COMMISSION FOR INDUSTRIAL SECURITY

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1	Version 1.0	• 5 Rajab, 1438 • 2 April, 2017

This Security Directive supersedes all previous Security Directives issued by the High Commission for Industrial Security (HCIS), Ministry of Interior.

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1 Purpose

This document provides general and administrative requirements for implementing the Security Directives (SEC) listed under Section 2 at light industrial and non-industrial facilities.

2 Scope

This directive provides Facility Operators (FO) with the general requirements for implementing the SEC directives at light industrial and non-industrial facilities under the jurisdiction of the HCIS.

These directives are structured as follows:

SEC-100:	General Requirements
SEC-101:	Potable Water Supply
SEC-102:	Railway Operations Security

These directives refer to Safety & Fire Protection directives (SAF) also issued by HCIS.

HCIS may issue additional non-industrial directives at any time.

3 Acronyms & Definitions

AHJ	Authority Having Jurisdiction
FO	Facility Operator: the owner, operator or lessee of a facility
HCIS	High Commission for Industrial Security
SAF	Safety & Fire Protection Directives
SEC	Security Directives
Shall	Indicates a mandatory requirement
Should	Indicates an advisory requirement

4 References

The current versions of the references in each SEC directive shall be applicable. They shall be considered integral to the SEC Directives.

5 Authority

HCIS has the authority to modify SEC directives without prior notice and to act as the AHJ for the implementation of security at non-industrial or light industrial facilities.

Examples of such facilities are as follows:

- Agriculture
- Education
- Medical
- Others as determined by HCIS
- Public Areas
- Railways
- Research
- Residential Compounds
- Retail Facilities
- Water Storage, Distribution & Pumping
- Water Treatment

The requirements of these directives only applies to those facilities under HCIS jurisdiction. There may be specific additional requirements for selected facility types.

6 Application

6.1 Application of Security Directives

6.1.1 SEC directives shall be applied throughout the lifecycle of relevant facilities. This includes planning, design, construction, commissioning, operations, maintenance, modifications, upgrades and decommissioning.

6.1.2 This Directive is applicable to all facilities including existing facilities, the expansion of existing facilities, new facilities, projects, and upgrades.

6.1.3 The HCIS reserves the right to modify and/or make changes, as deemed necessary, to the Security Directives without prior notice.

6.1.4 FO is responsible for full compliance with HCIS requirements. Any deficiencies detected during an HCIS inspection of the facility shall be corrected at FO's expense.

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6.2 Compliance

6.2.1 All existing facilities shall comply with these directives within 2 years from the release date of these directives.

6.2.2 All new facilities shall fully comply with these directives.

6.2.3 These directives may refer to requirements stated in SEC-01 through SEC-15 as part of developing security requirements for a specific FSC. These shall be augmented, where applicable, by facility specific directives such as, but not limited to, Potable Water (SEC-101) and Railways (SEC-102).

6.2.4 HCIS may release additional facility specific directives from time to time that will require compliance by the types of facilities covered in these new releases.

7 Waivers

7.1 Internal Company Standards

7.1.1 These directives supersede all Directives previously issued by the HCIS, or with any other standard.

7.1.2 The FO shall align its internal standards with SEC directives.

7.2 Waiver Requests

7.2.1 The FO shall seek specific approval from HCIS for any non-compliance with SEC Directives.

7.2.2 Any request for non-compliance shall be submitted to HCIS with justification proving that the non-compliances, and their resolutions, meets or exceeds SEC Directive requirements.

7.2.3 Waiver requests shall be based on the non-compliances identified during the SRA stage, the risk mitigation & countermeasure recommendations, sound engineering reasons and justifications.

In order to request a waiver, the FO shall submit a formal request to HCIS containing the following:

7.2.3.1 Facility location
7.2.3.2 Project details
7.2.3.3 Security Directive section/paragraph that is being impacted
7.2.3.4 Waiver description
7.2.3.5 Non-compliance risk impact
7.2.3.6 Reason for waiver request
7.2.3.7 Alternatives that have been considered
7.2.3.8 Risk mitigation strategy if the waiver is implemented
7.2.3.9 Relevant drawings that illustrate the details of the request

8 Facility Security Classification

8.1 General

8.1.1 The baseline security requirements definitions for a facility shall be based on its FSC.

8.1.2 Facilities shall be classified based on a four (4) level classification methodology with Class 1 being the highest level and Class 4 being the lowest level. Each FSC is described in Appendix A.

8.1.3 The business criteria for determining the FSC are defined in Appendix B.

8.1.4 The FSC is a product of the BCA and SRA for the facility.

8.1.5 Potable Water Storage, Distribution & Pumping facilities do not fit into the regular FSC criteria for facilities and their security requirement definitions are based on a Functional Classification (FC).

The details for the FC of Potable Water Storage, Distribution & Pumping are in SEC-101.

8.1.6 HCIS may issue additional facility specific directives where required.

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8.2 Business Criteria Analysis

8.2.1 The SRA process shall include and consider the criteria as listed in Appendix B to determine the FSC.

8.2.2 Each facility under the jurisdiction of HCIS shall have a FSC assigned based on the BCA and the SRA.

8.2.3 Each criterion shall be addressed and its applicability to the facility in question shall be detailed so that the basis of the FSC recommendation can be evaluated by HCIS.

8.2.4 The FO shall complete this worksheet, with specific information and supporting documents, that addresses each applicable criterion.

8.3 Security Risk Assessment

8.3.1 The Security Risk Assessment (SRA) shall be executed by a HCIS approved Security Consultant and incorporate the requirements stated in SEC-15.

8.3.2 The FO shall conduct a SRA for the facility as specified below:

8.3.2.1 An initial risk assessment of the facility to formulate the baseline security requirement.

8.3.2.2 When the commissioning of a new facility is completed an SRA shall be conducted as follows:

- Class 1; 12 months with follow-up meeting
- Class 2: 12 months
- Class 3 & 4: 18 months

8.3.2.3 When a new process or operation is proposed that may impact the existing security posture or conflict with existing SRA recommendations.

8.3.2.4 Expansion of existing facilities or any change in the physical layout of the facility that impacts the perimeter or gates.

8.3.2.5 When the threat substantially changes, at the discretion of the FO or when directed by HCIS.

8.3.2.6 After a significant security incident.

8.3.3 HCIS reserves the exclusive right to determine the final FSC for a facility.

9 Materials and Equipment

The selection of material and equipment, the design, construction, maintenance, operation, repair of equipment and facilities covered by this SEC directive shall comply with the requirements stated within these directives.

10 Environmental Requirements

10.1 Indoor Environment

All security equipment and rooms or cabinets housing security equipment shall be cooled, or heated as necessary, with redundant split or central air-conditioning units.

Security equipment installed in cabinets shall use a cabinet specific air-conditioner.

Window type air conditioners shall not be used for cooling any security facilities or equipment.

10.2 Outdoor Environment

10.2.1 Security equipment that is installed outdoors shall be rated to operate in direct sunlight under the environmental conditions stated below to ensure that reliable equipment function:

10.2.1.1 Ambient Temperature Range:

-10°C to +60°C in direct sunlight[1,2]

10.2.1.2 Ambient Relative Humidity Range:

5% to 95%, non-condensing

[1] *Excluding temperature rise in cabinet*

[2] *Lower temperature rated equipment may be used when FO can demonstrate the maximum temperature encountered over the last 20 years is lower than 60°C or higher then -10°C. The historical temperature data must be provided from a source certified by the Saudi Government Presidency of Meteorology and Environment.*

10.2.1.3 Airborne dust concentration:

Annual Average:	0.3 mg/m
Sandstorm:	3 mg/m

10.2.1.4 Wind Speed: 112 km/hour

10.2.1.5 Other Pollutants (vol/vol)

CO:	50 ppm
H_2S:	10 ppm
Hydrocarbons:	150 ppm
NOx:	5 ppm
O^3:	1 ppm
SO^2:	10 ppm

10.2.2 Equipment to be installed outdoor shall be designed to operate without air conditioning or forced air ventilation system and under the environmental conditions listed above and shall meet listed performance when subjected to the full range of these conditions.

11 Implementation

Security related projects shall follow the workflow specified in SEC-01 and SEC-14.

12 Security Infrastructure & System Design

Security infrastructure design and security system design shall comply with the requirements specified in SEC-01 through SEC-15 as applicable.

13 Proof of Compliance

FO shall provide proof of compliance as specified in SEC-01 through SEC-15 as applicable.

14 Security Operations

Security operations at facilities comply with the requirements specified in SEC-15.

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APPENDIX-A: FACILITY SECURITY CLASSIFICATION

1 Class 1 Facility

A Class 1 facility is defined as any facility with very high importance to the Kingdom and any loss of life, destruction of property or loss of assets through malicious intent, could seriously damage the Kingdom's reputation, economy or gravely disrupt the well-being of its population.

Business Criteria

- Major onsite and/or offsite loss of life
- Major property destruction
- Major loss of assets
- Major potential of damage to Kingdom's reputation or negative publicity
- Major Environmental impact onsite and/or offsite areas
- Loss of function/capacity cannot be made up by other existing facilities
- Critical infrastructure, regardless of capital investment or availability of alternates

2 Class 2 Facility

A Class 2 facility is defined as any facility with a high value or importance to the Kingdom and any loss of life, destruction of property or loss of assets through malicious intent, could cause short term damage to the Kingdom's reputation, economy or temporarily disrupt the well-being of its population.

Business Criteria

- Significant onsite and/or offsite loss of life
- Significant property destruction
- Significant loss of assets
- Significant potential of damage to Kingdom's reputation or negative publicity
- Significant Environmental impact onsite and/or offsite areas
- Loss of function/capacity can be compensated for short periods by other existing facilities.

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3 Class 3 Facility

A Class 3 facility is defined as any facility considered valuable to the Kingdom and whose disruption, damage loss of life, or loss of assets through malicious intent, could cause damage to the Kingdom's reputation or economy.

Business Criteria

- Limited onsite and/or offsite loss of life
- Limited property destruction
- Limited loss of assets
- Limited potential of damage to Kingdom's reputation or negative publicity
- Limited Environmental impact onsite and/or offsite areas
- Loss of function/capacity can be compensated for extended periods by other existing facilities.

4 Class 4 Facility

A Class 4 facility is defined as any facility considered important by the Kingdom and requires a low level of security.

Business Criteria

Such facilities are characterized by meeting ANY of the following criteria:

- Loss of life is unlikely
- No possibility for destruction of property
- No impact due to loss of assets
- No damage to Kingdom's reputation & no publicity value
- No environmental impact
- Very short term business interruption.

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APPENDIX-B: Business Criteria Analysis

1. Introduction

The SRA process shall include a Business Criteria Analysis (BCA) and consider the criteria as listed below to determine the FSC. The criterion shall be analyzed in terms of the specific facility in question and the risks for malicious action as identified during the SRA process.

2. Methodology

Each criterion shall be addressed and its applicability to the facility in question shall be detailed so that the basis of the FSC recommendation can be evaluated by HCIS.

Each criterion shall be considered on a three (3) level scale from High, Medium & Low with high the most likely and low the most unlikely.

Loss of life

The potential for the loss of life shall be considered as well as the number of possible loss/injury during a security event.

Property Destruction

The potential for destruction and damage to property, infrastructure and assets which may cause disruption of business.

Asset Loss

The potential for the loss of assets that may be of value to an adversary or inflict major financial loss to the FO.

Damage to the Kingdom's Reputation

The potential for damage to the Kingdom's reputation with the associated publicity value for an adversary.

Environmental impact

The environmental impact due to the destruction or loss of the facility. This covers both onsite and offsite areas.

Function Capacity Compensation

How can FO compensate for the loss of the facility's product?

Critical infrastructure

Is the facility considered critical infrastructure by the Kingdom of Saudi Arabia?

3. Matrix

FO shall utilize a BCA matrix, as shown below, to identify and characterize the impact of a facilities loss, destruction or limitation of output due to malicious attack. All criteria shall be characterized as High, Medium or Low with documentary evidence to support the FO rating of each criteria.

As stated in the table below, characterization of any criteria shall determine the level of protection required. For example selection of any criteria as High shall result in Class 1 or 2 FSC. The selection of either Class 1 or 2, in this specific case, shall be based on the SRA recommendations.

HCIS has the final authority to determine the FSC.

	SFC Criterion	FSC 1 & 2	FSC 3	FSC 4
		High	Medium	Low
1	Loss of life			
2	Property destruction			
3	Asset loss			
4	Damage to the Kingdom's Reputation			
5	Environmental impact			
6	Function Capacity Compensation			
7	Critical infrastructure			

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Ministry of Interior
High Commission for Industrial Security
Riyadh
Kingdom of Saudi Arabia

SEC-101

Potable Water Storage, Distribution & Pumping Facilities (NWC)

Version 1.0

Security Directives
for Non-Industrial Facilities

2017

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KINGDOM OF SAUDI ARABIA
MINISTRY OF INTERIOR
HIGH COMMISSION FOR INDUSTRIAL SECURITY

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This Security Directive supersedes all previous Security Directives issued by the High Commission for Industrial Security (HCIS), Ministry of Interior.

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1 Purpose

This document specifies security requirements for Potable Water Storage, Distribution & Pumping (WSDP) facilities under the jurisdiction of HCIS.

2 Scope

This directive only covers potable WSDP specific requirements. It shall be used in conjunction with SEC-01 through SEC-19 and SEC-100.

3 Acronyms & Definitions

BCA	Business Criteria Analysis
CNI	Critical National Infrastructure
FC	Functional Classification
FO	Facility Operator: the owner, operator or lessee of a facility
FSC	Facility Security Classification
LV	Line Valve
OCF	Operations Control Facility
PS	Pump Station
SCC	Security Control Center
SEC	Security Directives
SRA	Security Risk Analysis
VDV	Ventilation and Drainage Valves
WSDP	Water Storage, Distribution & Pumping Facilities

4 References

This directive adopts the latest edition of the references listed.

SEC-01	General Requirements for Industrial Security
SEC-02	Security Fencing
SEC-03	Security Gates
SEC-06	Security Devices
SEC-07	Power Supply
SEC-09	Structures housing Security Equipment
SEC-15	Security Management at Industrial Facilities

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5 General Requirements

This document addresses the specific requirements of Potable Water Storage, Distribution & Pumping Facilities (WSDP) facilities and provides criteria for determining their Functional Classification (FC) and the security requirements, based on existing Security Directives, for each FC.

WSDP's shall be functionally classified by conducting a Business Criteria Analysis (BCA) as stipulated in this directive.

5.1 Functional Classification

Each Potable WSDP under the jurisdiction of HCIS shall have a FC assigned based on the BCA, and the risks determined by a Security Risk Assessment (SRA).

FO shall submit a recommended FC to HCIS for approval. HCIS reserves the exclusive right to determine the final FC for all WSDP's under HCIS jurisdiction.

Facilities shall be classified based on a three (3) level classification methodology with Class A being the highest level and Class C being the lowest level. The business criteria for determining the FC of a specific facility are defined in the sections below.

5.1.1. Class A WSDP

A Class A WSDP facility is a critical element in the water storage and distribution network.

Business Criteria

Such a WSDP facility is characterized by meeting ANY of the following criteria:

5.1.1.1. Loss of function/capacity cannot be compensated for by another WSDP facility within 24 hours.
5.1.1.2. Loss of function/capacity would result in more than 50% reduction in WSDP capacity to the service area.
5.1.1.3. Directly and seriously impacts hydrocarbon exports.
5.1.1.4. It will affect Critical National Infrastructure in case of loss.

Security Requirements Overview

A WSDP facility classified as Class A shall comply with HCIS Security Directive for Industrial Facilities requirements for a Class 1 or a Class 2 facility (as defined in SEC-01) depending on the BCA and recommendations of the SRA.

5.1.2. **Class B WSDP**

A Class B WSDP facility is an important element in the water & supply distribution network.

Business Criteria

Such a WSDP facility is characterized by meeting ANY of the following criteria:

5.1.2.1. Loss of function/capacity cannot be compensated for by another storage & supply facility within 72 hours.
5.1.2.2. Loss of function/capacity would result in more than 25% reduction in storage & supply capacity to the service area.
5.1.2.3. Directly impacts hydrocarbon exports.
5.1.2.4. Loss may impact Critical National Infrastructure.

Security Requirements Overview

A WSDP facility classified as Class B shall comply with HCIS Security Directive for Industrial Facilities requirements for a Class 2 or a Class 3 facility (as defined in SEC-01) depending on the BCA and recommendations of the SRA.

5.1.3. **Class C WSDP**

A Class C WSDP facility is a minor element in the WSDP network.

Business Criteria

Such a WSDP facility is characterized by meeting ANY of the following criteria:

5.1.3.1. Minor element in supporting national water storage and supply capacity.
5.1.3.2. Loss of function/capacity can be compensated for by other storage & supply facilities.

Security Requirements Overview

A WSDP facility classified as Class C shall comply with HCIS Security Directive for Industrial Facilities requirements for a Class 3 or Class 4 (as defined in SEC-01) facility depending on the BCA and recommendations of the SRA.

5.2. BCA Worksheet

The BCA worksheet required for the SRA and FC development shall utilize the format shown below:

	Facility Name:		
	Location:		
	Criteria	Yes/No	Details
	Class A		
1.	Loss cannot be compensated within 24 hours	Y/N	*List the other storage, supply & pump station facilities that have adequate capacity & connectivity to compensate for loss*
2.	Loss of function/capacity results in > 50% storage capacity reduction	Y/N	*List storage capacity reduction*
3.	Directly & seriously impacts hydrocarbon exports	Y/N	*List critical hydrocarbon facilities supplied with water*
4.	Affects Critical National Infrastructure	Y/N	*List CNI supplied with water from this facility or pump station*
	Class B		
1.	Loss of function/capacity cannot be compensated within 72 hours.	Y/N	*List the other storage, supply & pump station facilities that have adequate capacity & connectivity to compensate for loss*
2.	Loss of function/capacity results in > 25% storage & supply capacity reduction to the service area.	Y/N	*List storage & supply capacity reduction*
3.	Directly impacts hydrocarbon exports	Y/N	*List critical hydrocarbon facilities supplied with water*
4.	Loss may impact Critical National Infrastructure	Y/N	*List CNI supplied with water from this facility or pump station.*
	Class C		
1.	Minor element in supporting the National water storage & supply capacity.	Y/N	• *List impact on storage capacity due to loss* • *List major critical volumes supplied*
2.	Loss of function/capacity can be compensated for by other storage facilities	Y/N	*List the other storage, supply & pump station facilities that have adequate capacity & connectivity to compensate for loss*

5.3. Security Risk Assessment

The FO shall conduct a SRA as stipulated in SEC-01 and SEC-15, incorporating the results of the FC BCA Worksheet. The recommendations of the SRA will provide the basis for the protection and security design for the applicable facilities in the operational area and along WSDP networks.

The FO shall ensure that the following specific threats to water facilities are addressed in the SRA:

- Cyber intrusion
- Physical access
- Vehicle access
- Air access
- Open reservoirs
- Covered reservoirs
- Reservoir inlets/outlets
- Access hatches
- Sample taps
- Disinfection systems
- Chemical storage facilities
- Chemical injection systems
- Pump Stations
- Critical valves

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5.4. Water Storage

Water storage facilities covered by this directive may include any of the following types:

5.4.1. Tanks: Facilities containing single or multiple water tanks
5.4.2. Dams: Dams that are used to create water reservoirs
5.4.3. Water Wells: Main water wells

The SRA shall consider security measures for all of these water storage facilities within the operational area where the SRA is being conducted.

5.5. Distribution System

5.5.1. Pump Station

A PS shall be secured in accordance with the recommendations of the SRA and the FC of the PS.

The following additional guidelines shall apply:

5.5.1.1. The requirements for each security system, sub-system and component shall comply with the requirements SEC 01 – SEC 15 as applicable.

5.5.1.2. At unmanned pumping stations a gate shall be constructed to meet the requirements and intentions of SEC 03, section 5.

5.5.1.3. The installed security systems shall be monitored locally or at a remote security control center (SCC) to be designated by the FO. Manned facilities shall have the capability to monitor all the security systems in a SCC locally.

5.5.1.4. A gatehouse shall not serve as a SCC.

5.5.1.5. The remote or central SCC shall be manned 24/7 with personnel trained to respond to emergencies at the facilities monitored.

5.5.1.6. FO shall develop a response plan for unmanned facilities to manage keys, scheduled access and alarm response to an intrusion.

5.5.1.7. FO shall ensure that the power supply comply with SEC-07 requirements.

5.5.1.8. Regular scheduled patrols shall be carried out by FO's security personnel at unmanned facilities.

5.5.1.9. FO shall compile a Support & Maintenance plan with support/repair teams available to ensure 24/7 availability of the security systems.

5.5.2. Line Valves

LV's provide access to the pipeline and shall be secured in accordance with the recommendations of the SRA and the Facility Classification of the LV. As a minimum the security measures for a Class 3 facility as stipulated in SEC-01 shall apply.

The following additional guidelines shall apply:

5.5.2.1. The requirements for each security system, sub-system and component shall comply with the requirements of HCIS SEC 01 – 19.

5.5.2.2. At unmanned LV's a gate shall be constructed to meet the requirements and intention of SEC 03, section 4 and SEC-06 for a Class 3 facility.

5.5.2.3. The installed security systems shall be monitored locally or at a remote location to be designated by FO. Manned facilities shall have the capability to monitor all the security systems locally.

5.5.2.4. The central monitoring station shall be manned 24/7 with personnel trained to respond to emergencies at the facilities monitored.

5.5.2.5. FO shall develop a response plan for unmanned facilities to manage keys, scheduled access and alarm response to an intrusion.

5.5.2.6. FO shall ensure that the power supply comply with SEC-07 requirements.

5.5.2.7. Regular scheduled patrols shall be carried out by FO's security personnel at unmanned facilities.

5.5.2.8. FO shall compile a Support & Maintenance plan to ensure 24/7 availability of security systems.

5.5.3. **Ventilation & Drainage Valves**

VDV shall be secured in accordance with the recommendations of the SRA and the FC of the VDV. Due to the size and nature of a VDV unit it is not possible to implement all the security measures as required by HCIS SEC Directives.

As a minimum the following security measures shall be implemented at each unit:

5.5.3.1. A ridged 3m high perimeter cage topped with two coils of barbed wire. The cage shall be constructed of a fencing material which complies with the requirements of SEC-02 and provides forced entry resistance.

5.5.3.2. The cage shall be secured to a foundation.

5.5.3.3. The cage shall be equipped with a small gate with a protected security lock.

5.5.3.4. Manhole covers shall be fitted with unique locking mechanisms to secure them in place.

5.5.3.5. Manhole covers shall be fitted with an anti-tamper sensor monitored in the nearest WSDP control center.

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6 Proof of Compliance

FO shall provide HCIS with a Proof of Compliance (PoC), as part of the Stage 3 workflow, to explain and demonstrate how the FO is complying with specific requirements in this directive. This will augment the Stage 3 submission which covers all items. FO shall also submit the PoC specified in each individual directive.

This PoC shall provide details for each of the requirements listed below. PoC submissions shall be supported with manufacturer's brochures or catalogs ONLY where they are relevant to the response.

In all cases the responses shall be specific in nature and include adequate technical details to demonstrate compliance to HCIS:

	SEC-101 Reference	Requirement	FO Response
1.	5.2.	FC BCA Worksheet	*Provide worksheet with supporting documents*
2.	5.3.	FC Basis	*Provide SRA*

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نسخة مرخصة لشركة المياه الوطنية

Ministry of Interior
High Commission for Industrial Security
Riyadh
Kingdom of Saudi Arabia

SEC-102

Railway Operations Security

Version 1.0

Security Directives
for Non-Industrial Facilities

2017

نسخة مرخصة لشركة المياه الوطنية

KINGDOM OF SAUDI ARABIA
MINISTRY OF INTERIOR
HIGH COMMISSION FOR INDUSTRIAL SECURITY

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Version History

Item	Description	Effective Date
1	Initial Issue	• 5 Rajab, 1438 • 2 April, 2017

This Security Directive supersede all previous Security Directives or Security and Safety Directives (SSD) previously issued by the High Commission for Industrial Security (HCIS), Ministry of Interior.

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1 Purpose

The document provides the requirements for implementing security at railway facilities and trains used within the Kingdom of Saudi Arabia.

2 Scope

This standard details security requirements for all railway services to include passenger trains (locomotives & railcars), metro systems, stations, depots, yards, and cargo (rolling stock) transit.

It shall be used in conjunction with the applicable directives SEC-01 through SEC-15 and SEC-100.

3 Acronyms & Definitions

ACS	Access Control System
DVR	Digital Video Recorder
FO	Facility Operator; owner, operator or lessee of a facility
FSP	Facility Security Plan
HCIS	High Commission for Industrial Security
PoC	Proof of Compliance
RO	Railway Operator
RSP	Railway Security Plan
SCC	Security Control Center
Shall	Indicates a mandatory requirement
Should	Indicates a recommendation or that which is advised but not required
VASS	Video Assessment & Surveillance System

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4 References

This directive adopts the latest edition of the references listed.

Railway Operators (RO's) shall note that these references are provided to assist RO in the development of a viable security and safety strategy as pertains to railway operations.

SEC-01	General Requirements of Security Directives
SEC-02	Security Fencing
SEC-03	Security Gate
SEC-04	Security Lighting
SEC-05	Security Systems at Industrial Facilities
SEC-06	Security Devices
SEC-07	Power Supply
SEC-08	Security Communications & Data Networks
SEC-09	Structures housing Security Equipment
SEC-11	Identification Cards
SEC-12	Cyber Security
SEC-14	Security Project Management
SEC-15	Security Management at Industrial Facilities

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5 General Requirements

RO's providing railroad services shall comply with the requirements of this directive for the security of railway facilities, passenger cars, rolling stock and communications systems.

5.1 Facility Security

Facility security refers to the security of railway stations, railway control centers, administration buildings, workshops, storage, substations and other railway related fixed facilities.

5.1.1 Facilities shall have a category 4 perimeter fence as specified in SEC-02.

5.1.2 RO shall have the capability to close off access to all public areas when needed. This shall require all gates leading to the public areas to install anti-vehicle barriers (SEC-03, SEC-06) in all traffic lanes, inbound & outbound, to limit vehicle access and auxiliary gates (SEC-03) to close off pedestrian access.

In general, gates shall follow SEC-03 requirements including the use of ballistic protection for gatehouses.

5.1.3 Perimeters shall be lit with area lighting as specified in SEC-04.

5.1.4 Access to employee only areas shall be managed by a SEC-05 compliant ACS. The identification cards used for the ACS shall comply with SEC-11.

Access to the platform shall only be permitted for ticketed passengers.

5.1.5 SEC-05 compliant VASS cameras shall be deployed in both public areas and employee only areas. They shall be sited so that a person entering the facility can be tracked from entry to exit.

All platform areas shall have proper lighting and cameras sited to cover all sections of the platform.

5.1.6 Sensors shall be installed to detect if a person attempts to enter a tunnel from the platform.

There shall be tangible barriers to prevent non-authorized personnel from entering the tunnel areas. The first 100m of the tunnel adjacent to a platform shall be covered by VASS compliant cameras monitored at the SCC.

5.1.7 Passengers, luggage and packages entering the platform areas, or being checked in for a long haul train, shall be inspected by SEC-03/SEC-06 compliant x-ray inspection systems or metal detection systems when required during periods of elevated security or at RO discretion.

5.1.8 SEC-05 compliant VASS cameras shall be deployed along the entire perimeter to monitor the fence line. Camera imagery shall be analyzed by a SEC-05 compliant video analytics system to automatically annunciate an intrusion alarm.

5.1.9 All security devices deployed at railway facilities shall comply with SEC-06 requirements.

5.1.10 The power supply for security systems shall comply with SEC-07 requirements.

5.1.11 Security systems installations & railway control center locations shall comply with the physical security requirements stated in SEC-09.

5.2 Rail Track

RO shall implement procedures and systems to ensure the security of rail track.

5.2.1 RO shall evaluate risks along the rail track routes and determine where additional security measures, such as, but not limited to, surveillance systems and intrusion systems shall be installed and monitored at the nearest regional control center. Camera imagery shall be analyzed by a SEC-05 compliant video analytics system to automatically annunciate an intrusion alarm at the responsible SCC.

5.2.2 In sections of the route designated as elevated risk or areas with a history of problems, RO shall deploy additional security measures that are designed to combat the specific risks that have been identified.

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5.3 Passenger Cars

5.3.1 Passenger cars on both metropolitan and long haul passenger service shall have surveillance cameras mounted in each car. The video imagery shall be recorded on a DVR for future review if needed.

5.3.2 All cameras and related equipment shall comply with SEC-05 requirements for VASS systems. In addition they shall be protected against vandalism.

5.3.3 Long-haul passenger trains shall always have at least one security person on board to address any security concerns that may arise during the trip.

5.4 Rolling Stock

Rolling stock carrying cargo or industrial materials shall be secured with seals to prevent pilferage. Cargo or materials may be liquid, gaseous, chemical or general industrial materials. In all cases security shall be configured for the specific nature of the rolling stock configuration.

5.5 Communications Systems

5.5.1 Communications systems and data networks used for security systems or industrial control systems shall comply with SEC-08 and SEC-12 requirements. This shall include encryption and security of the signaling and control systems used along the track.

5.5.2 Train located security personnel shall have the capability to communicate with other RO assets while the train is in motion. This communication system shall comply with SEC-08 requirements or wireless communications.

5.6 Railway Security Plan

RO shall develop a Railway Security Plan (RSP), similar to the Facility Security Plan (FSP) specified in SEC-15, to manage security across railway devices and facilities:

5.6.1 All railway locations.

5.6.2 RO shall evaluate risks at all tunnels along the routes to determine which need to be equipped with motion detection cameras at both sides, (entrance & exit) and the images shall be linked and analyzed as described in section 5.2.1 at the applicable regional control center.

RO shall establish a response capability to be dispatched after alarm annunciation.

5.6.3 All areas between stations, locations and tunnels shall be included in the RSP.

5.7 Security Control Center (SCC)

5.7.1 RO shall implement a SCC, as specified in SEC-5 and SEC-09, to manage security and security assets, across the entire system.

5.7.2 The SCC may be configured as local, regional or central depending on the RO's assessment and HCIS requirements. The SCC shall have the capability to view the locations of all trains.

5.7.3 Each section of rail track and location shall have a designated SCC responsible for managing security in these areas.

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6 Proof of Compliance (PoC)

FO shall provide HCIS with a Proof of Compliance (PoC), as part of the Stage 3 workflow, to explain and demonstrate how the FO is complying with specific requirements in this directive. This will augment the Stage 3 submission which covers all items. FO shall also submit the PoC specified in each individual directive.

This PoC shall provide details for each of the requirements listed below. PoC submissions shall be supported with manufacturer's brochures or catalogs ONLY where they are relevant to the response.

In all cases the responses shall be specific in nature and include adequate technical details to demonstrate compliance to HCIS:

	SEC-102 Reference	Requirement	FO Response
1.	5.1	Facility Security	*Provide facility security design drawings for all facilities and documentation to validate how section 5.1 is being complied with*
2.	5.2	Rail Track	*Provide results of security survey of rail track routes to determine where additional security is required*
3.	5.3	Passenger Cars	*Provide details of security systems and personnel as applied to passenger cars*
4.	5.4	Rolling Stock	*Provide details of security systems and personnel as applied to Rolling Stock*
5.	5.5	Communications Systems	*Provide overview of wires and wireless communications systems available to security personnel at trains and stations*
6.	5.6	Railway Security Plan	*Provide Railway Security Plan for each train and facility*
7.	5.7	Security Control Center	*Provide data to validate compliance with this section*

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